

**ABSTRACT OF THE DISCLOSURE**

Methods and apparatuses for searching for an optimal resource allocation configuration are disclosed. First and second configurations for allocating resources are generated, each having first and second degrees of optimization, respectively. The second configuration is based on a variation of the first configuration. The second configuration is rejected if the first degree of optimization represents a more optimal configuration than the second degree of optimization based on a first probability that the first configuration is a global optimum configuration. The second configuration is accepted if the first degree of optimization represents a more optimization configuration than the second degree of optimization based on a second probability that the first configuration does not comprise the global optimum configuration.